

CLAIMS

1. A musical tone generating apparatus, which includes sound sources capable of reading out a waveform from a waveform memory at a plurality of access timings in a timing for one channel, comprising:

a mode switching means for performing switching between a mode to use a solo sound source and a mode to use a plurality of sound sources;

an accumulator for accumulating designated pitches;

10 an upper-address processing means for processing an upper data in the accumulator into consecutive addresses;

an address memory for a second sound source, the address memory receiving an address to the waveform memory generated from a second sound source and storing the address therein;

an address-switching output means for performing switching between a first address indicated by an upper data of the accumulator and a second address stored in the address memory for a second sound source and outputting a selected one of the addresses in response to a mode switching signal from the mode switching means and an access timing, the address-switching output means outputting the first address and a consecutive address in the mode to use a solo sound source, the consecutive address being processed to precede or follow the first address by the upper-address processing section;

a waveform data register for storing a waveform data

read out from the waveform memory based on an output address;

a sample buffer wherein waveform data, which have been read out at the previous access timing and have been stored in the waveform data register, are stored by (an interpolation point number - 1);

an interpolation coefficient memory for storing interpolation coefficient data;

an interpolation coefficient extracting means for extracting corresponding interpolation coefficients from the interpolation coefficient memory, based on lower data in the accumulator;

a sample interpolation means, wherein the waveform data, which have been respectively stored in the waveform register and the sample buffer, are subjected to interpolation based on interpolation coefficients extracted by the interpolation coefficient extracting means; and

a selection means, wherein the waveform data, which have been respectively stored in the waveform register and the sample buffer and have been input into the sample interpolation means, are selected in response to a mode switching signal from the mode switching section and an address value indicated by the upper data of the accumulator.

2. The musical tone generating apparatus according to Claim 1, wherein the interpolation performed by the

sample interpolation section is four-point interpolation.

3. A musical tone generating apparatus, which includes a master sound source serving as a master in memory access and a slave sound source serving as a slave in the memory access, both sound sources performing the memory access to a waveform memory with a common clock; comprising:

the slave sound source including a transmitting means for transmitting a slave address for reading out a waveform, to the master sound source;

10 the master sound source including a receiving means for receiving the slave address transmitted from the transmitting means of the slave sound source;

the master sound source including a transmitting means for transmitting a waveform data for the slave sound source to the slave sound source, the waveform data being read out from the waveform memory;

15 the slave sound source including a receiving means for receiving the waveform data for the slave sound source, which has been transmitted from the transmitting means of the master sound source;

20 wherein the master sound source operates so that a master address, which has been obtained by operation, is output to the waveform memory in the former half of the operation time for one channel, and that a slave address, which has been transmitted from the transmitting means of the slave sound source and has been received by the receiving means of the master sound source, is output to

the waveform memory in the latter half of the operation time for the one channel, and the master sound source also operates so that a waveform data for the slave sound source, which has received from the waveform memory, is
5 supplied to the transmitting means of the master sound source and is transmitted to the receiving means of the slave sound source in the latter half of the operation time for the one channel.

4. The musical tone generating apparatus according to
10 Claim 3, wherein the receiving means of the master sound source, which receives the slave address transmitted from the transmitting means of the slave sound source, receives the slave address at an edge of an inverted clock pulse, and

15 wherein the receiving means of the slave sound source, which receives the waveform data for the slave sound source transmitted from the transmitting means of the master sound source, receives the waveform data at an edge of an inverted clock pulse.